TEXAS DEPARTMENT OF INSURANCE

Engineering Services / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION Effective July 1, 2011
WIN-642

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **December 2011**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

WV Clad Wood Double Hung Windows, Non-impact Resistant, manufactured by

Lincoln Wood Products, Inc.
1400 W. Taylor Street
Merrill, Wisconsin 54452
(715) 536-2461

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The WV (vinyl) clad double hung window is a wood window. The WV (vinyl) clad wood double hung windows evaluated in this report are individual and mulled, non-impact resistant windows. This product evaluation report is for WV (vinyl) clad wood double hung windows based on the following tested constructions:

General Description:

System	Description	Label Rating
1	WV (Vinyl) Clad Wood Double Hung Window; DP50 Upgrade Kit; (X/X)	H-LC50 38 x 77 (MODIF)
2	WV (Vinyl) Clad Wood Double Hung Window; (X/X)	H-R30 38 x 77
3	WV (Vinyl) Clad Wood Double Hung Window; (X/X)	H-R30 46 x 61
4	WV (Vinyl) Clad Wood Double Hung Window; (X/X)	H-LC25 46 x 81
5	WV (Vinyl) Clad Wood Double Hung Window; Twin; (X/X.X/X)	H-LC30 75 x 77 (MULL) AAMA 450-06

Product Dimensions:

System	Overall Size	Bottom Sash Size	Top Sash Size
1	37 3/8" x 76 1/2"	34 1/2" x 37 5/8"	33 3/4" x 37 9/16"
2	37 3/8" x 76 1/2"	34 1/2" x 37 5/8"	33 3/4" x 37 9/16"

Product Dimensions (continued):

System	Overall Size	Bottom Sash Size	Top Sash Size
3	45 3/8" x 60 1/2"	42 1/2" x 29 3/4"	41 3/4" x 29 9/16"
4	45 3/8" x 80 1/2"	42 1/2" x 39 3/4"	41 3/4" x 39 9/16"

Product Dimensions (mulled assembly):

System	Overall Size	Individual Window Size	Bottom Sash Size	Top Sash Size
5	74 3/4" x 76 1/2"	37 3/8" x 76 1/2"	34 1/2" x 37 5/8"	33 5/8" x 37 7/16"

Glazing Description:

System	Glass Construction [1]	Glazing Method [2]
1	IG-1	GM-1
2	IG-1	GM-1
3	IG-1	GM-1
4	IG-1	GM-1
5	IG-1	GM-1

Note: [1] See the "Glass Construction Key" for the glazing construction.
[2] See the "Glazing Method Key" for the glazing method description.

Glass Construction Key:

IG-1: Both sashes contain a sealed insulating glass unit. The sealed insulating glass units in the tested assembly are comprised of two double strength (1/8") annealed glass lites separated by an Intercept metal spacer system. The glass thickness and type used in the insulating glass units of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-0-4.

Glazing Method Key:

GM-1: The insulating glass units are set from the interior against structural silicone backbedding. Wood glazing stops secure the insulating glass units in place from the interior. The wood glazing stops are secured to the frame with brads spaced approximately 7 inches on center.

Frame Construction: The frame members consist of molded pine sections. The frame corners are dadoed, sealed at the lower corners, and secured with staples. The interior wood sash stops are secured to the wood frame members with staples. Composite PVC blind stops are used between the vinyl cladding and the wood frame members and are secured with brads.

System 1: Each vinyl jamb liner used one (1) wood block located at the midspan and is secured to each jamb liner with screws.

Vinyl Cladding: The vinyl cladding at the head and verticals is snap-fit into place and secured to the wood frame members with staples. The vinyl cladding at the sill is snap-fit to the frame members. The sill utilized one (1) screw into the vertical frame cladding per corner.

Sash Construction: The sash head, sill, and jambs consist of molded pine members. The sash corners are mortise and tenon construction and are secured with brads.

Vinyl Cladding: The vinyl cladding is snap-fit to the frame members and is sealed with silicone.

Mullion (System 5): The frame side jambs are secured together with a continuous bead of silicone sealant and corrugated fasteners at the head and the sill. An extruded aluminum mullion plate is utilized at the head and the sill and is secured with staples.

Hardware (per window):

- Metal sweep lock w/adjacent keeper; two (2) required; Located at the bottom sash meeting rail, 8 inches from each end.
- Vinyl jamb liner w/ balances; two (2) required; Located on the frame jambs.
- Metal tilt/pivot pin; four (4) required; Located on the top sash meeting rail and the bottom sash rail ends.
- Tilt latch; two (2) required; Located on the bottom meeting rail and the top rail ends.

Product Identification:

Systems 1 thru 4: A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (**LN-1**); product name: **WV Double Hung**; performance characteristics; the approved inspection agency (AAMA); and the applicable standard: AAMA/NWWDA 101/I.S.2-97.

System 5: A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (**LN-1**); product name: **WV Double Hung Combination Assembly**; performance characteristics; the approved inspection agency (AAMA); and the applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05 and AAMA 450-06.

LIMITATIONS

Design pressures (DP):

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	37 3/8	76 1/2	± 50
2	37 3/8	76 1/2	± 30
3	45 3/8	60 1/2	± 30
4	45 3/8	80 1/2	± 25
5	74 3/4	76 1/2	± 30

Impact Resistance: These window assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These window assemblies will need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

Acceptance of Smaller Assemblies: Windows assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General: The window assembly shall be prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

Installation:

System 1: The window shall be fastened to minimum Southern Yellow Pine lumber. The window is secured to the wall framing using the integral nailing flange of the window frame and with masonry clips. The nailing flange shall be secured to the wall framing with minimum 2 inch long roofing nails (minimum 12 gauge smooth shank diameter). The fasteners shall be spaced approximately 6 inches

from each corner and approximately 8 inches on center. The nailing flange is silicone sealed to the window frame. The masonry clips are located 4 inches from each end of each jamb and at the mid span of each jamb. Masonry clips are also required 2 ¼ inches from each end at the head and at the sill. Each masonry clip is secured to the window frame with two (2) No. 8 x ¾" screws and to the wall framing with two (2) No. 6 screws. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing members.

Systems 2 through 5: The window shall be fastened to minimum Southern Yellow Pine lumber. The window is secured to the wall framing using the integral nailing flange of the window frame. The nailing flange shall be secured to the wall framing with minimum 2 inch long roofing nails (minimum 12 gauge smooth shank diameter). The fasteners shall be spaced approximately 6 inches from each corner and approximately 8 inches on center. The nailing flange is silicone sealed to the window frame. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing members.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.